

# IRTS Radio News Bulletin Sunday 07 September 2022

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## Club News

### Galway Radio Experimenters Club

The September meeting of the Galway Radio Experimenters Club (EI4GRC) will take place next Monday night, the 5th of September at 8.00 p.m. sharp in The Menlo Park Hotel, Terryland, Headford Road, Galway, eircode H91 E98N. There will also be virtual access to the meeting. Please contact the Club Secretary via email [secretary /at/ galwayradio.com](mailto:secretary@galwayradio.com) for access details. The club website is [www.galwayradio.com](http://www.galwayradio.com), and anyone is welcome to come to our club nights or contact the secretary for more information.

### South Eastern Amateur Radio Group

With our ever-increasing events calendar the South Eastern Amateur Radio Group EI2WRC are pleased to announce the appointment of Edwin Van Mierlo (EI2HEB) as the Events Coordinator of the group. Edwin's first job will be the coordination of the Railways On The Air event which takes place over the weekend of the 24th and 25th of September. As in previous years the group will be active from The Waterford & Suir Valley Railway station in Kilmeaden, Co. Waterford. WSVR is a community heritage project. The project has enabled the magic of rails golden age to be brought to life in Kilmeaden. A heritage narrow-gauge railway runs along 17 kilometres of the abandoned Waterford to Dungarvan line. The South Eastern Amateur Radio Group would like to thank the manager Maria Kyte and all the staff of The Waterford & Suir Valley Railway for all their help and allowing us access to do this event again this year. For more information about the WSVR please see [www.wsvrailway.ie](http://www.wsvrailway.ie). For anyone that wishes to find out more about the South Eastern Amateur Radio Group and their activities you can drop them an email to [southeasternarg /at/ gmail.com](mailto:southeasternarg@gmail.com) or please feel free to go along to any of their meetings. You can check their website [www.searg.ie](http://www.searg.ie) and you can also join them on Facebook and follow them on Twitter.

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## UK Amateur Radio License

Recent changes to the Amateur Radio Licence, which require radio amateurs to demonstrate compliance with Ofcom guidelines for minimising the exposure of the general public to electromagnetic fields (EMF) from their station, have made necessary urgent changes to the examination syllabus. Since the 1st of September

examinations include questions on the new EMF-related material at all levels. See [www.rs.gb.org](http://www.rs.gb.org) for details.

For interested parties, the Strangford High Frequency Enthusiasts Group are hosting a new Full UK licence distance learning program starting on the 12th of September via Google Meet. Places are still available and start at 8pm each Monday evening. The course lasts fifteen weeks. Full support is also available via email and the material is also presented via 140 useful videos and documentation. All services are completely free and there are no minimum entry requirements, just enthusiasm. [GIOVKP /at/ gmail.com](mailto:GIOVKP/at/gmail.com)

Other sources for help towards a UK license are projects like the online-based Ham Radio Network. On Monday they have an evening with Ian Keyser (G3ROO), talking about antenna concepts. Their website is [www.hrn.world](http://www.hrn.world).

The Online Radio Club has a virtual radio club night at 7:30 pm every Thursday via Zoom. It is suitable for all radio enthusiasts regardless of individual skill level. They are at [www.onlineradioclub.org](http://www.onlineradioclub.org)

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## Contests

Congratulations to the Team of EI100C. They won this year's CQ WPX SSB contest, coming first in a field of well over 6000 entrants. This prestigious contest organised by the World Wide Radio Operators Foundation. EI100C operated from EI7M in Cork, the successful team was EI3JE, EI3JZ, EI3KD, EI4BZ, EI4HQ, EI5GSB, EI5LA, EI6LA, EI7IG, EI8IR and ON4EI.

For next weekend's big event the German Amateur Radio Club (DARC) invites radio amateurs world-wide to participate in the annual Worked All Europe DX Contest. Many leading contesters claim the WAEDC to be the most challenging contest of the year. Only intercontinental QSOs between DX and Europe are counted. A unique feature is the QTC traffic. The DX stations transfer real telegrams containing data of previously logged QSOs, earning additional points. Multipliers are counted per band and on the low bands they count more than on the high bands, leading to significant activity on 40m and 80m. According to IARU-Region1 rules no contest operation is allowed outside the contest-preferred segments. No contest operation on 3650 to 3700 kHz, 7040 to 7060 and 7100 to 7130 kHz, 14100 to 14125 and 14300 to 14350 kHz.

The UK and Ireland Contest Club was formed in 2014 to promote the development of HF contesting in the UK and Ireland and to encourage newcomers into HF contesting. And it has lived up to that motto, this friendly and courteous event has become a fixture on the European contest calendar. The UKEICC is run by a small but

enthusiastic group of keen British and Irish contesters. The club call-signs G5GEI and EI5G will be active as bonus stations in the upcoming UK EI Contest Club 80m contest, taking place on Wednesday from 20:00 to 21:00 UTC. Using SSB only the exchange is your 6-character locator, The log is uploaded until 22:00 UTC, and the results are known shortly after. See [www.ukeicc.com](http://www.ukeicc.com) for details.

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## **Hamradio in Space**

OMOTENASHI, a project of the JAXA Ham Radio Club, is a 6-Unit CubeSat with a mass of around 14 kg hitching a ride on the Moon rocket which hopefully launches at the third attempt. But once it does amateur radio may soon have a presence on the Moon. OMOTENASHI consists of three modules: an orbiting module, a retro motor module, and a surface probe. During the moon transfer orbit, these modules are integrated. When OMOTENASHI arrives at the moon, the surface probe will be separated and conduct semi-hard landing. There will be UHF CM, PSK, PM and PSK31 beacons on 437.31 MHz with 1 watt RF each, on both the orbiting module and the surface probe. For further details, please see: [www.isas.jaxa.jp](http://www.isas.jaxa.jp)

The launch of GENESIS-G and GENESIS-J with Firefly will take place next Sunday. This will be the second attempt of Firefly to reach orbit after the first attempt made in September 2021 failed two minutes into the flight. These new GENESIS have a more powerful on-board computer than their predecessors and updated software that allows FM voice repeater functionality, AFSK/FSK non-regenerative repeater up to 2400 bps, FSK regenerative repeater up to 50 bps, CW, digitised voice pre-recorded FM and FSK telemetry at 50 bps. The correct re-transmission of AX25 / APRS frames over FM up to 2400 bps has been verified in the laboratory. The antenna deployment mechanism requires a well charged battery. The satellites have been stored for several months, hopefully retaining enough charge. GENESIS-G will be heard with the call-sign AM2SAT on 436.888 MHz and GENESIS-J will be heard as AM3SAT on 436.666 MHz. AMSAT encourages all to try to receive and report the first transmissions once the first keplerian elements are available.

Jeffrey Roe (EI7IRB) announces a Hackerspace workshop at TOG. He says: Space is fun. Receiving data from space is even better. TinyGS is an open community-run network of Ground Stations distributed around the world to receive and operate LoRa satellites, weather probes and other flying objects, using cheap and versatile modules, as seen on [www.tinygs.com](http://www.tinygs.com) This hands-on workshop will cover building, programming and setting up your own TinyGS station. Participants will build their very own quarter-wave ground plane antenna, and base station to take home. All they have to do is plug the box into a USB charger. This workshop is perfect if you want to get started building your first antenna and get started in the world of radio. No amateur radio license is required to operate the station, only if you wish to send data

to space. The event date is Saturday, the 17th September from 16:00 to 18:00, at a cost of 50 Euro plus Eventbrite fees, for a maximum of eight participants. The location is the Tog Hackerspace, Unit 1B Motor City, Kylemore Road, Dublin 12, eircode D12 KRW1. For more information and booking details visit [www.tog.ie](http://www.tog.ie)

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## **The Propagation Horoscope**

New research, published in Frontiers in Astronomy and Space Sciences, shows that a "solar clock" based on the sun's magnetic field, rather than the presence or absence of sunspots, can precisely describe and predict many key changes throughout the solar cycle. Changes occur at each one-fifth of a cycle, regardless of the exact length of a given cycle. The sun's magnetic field changes direction each solar cycle, with an overlap between consecutive cycles. When a previous cycle's polar field has completely disappeared from the sun's surface it is quickly followed by a dramatic rise in solar activity. At two-fifths of a cycle, polar coronal holes re-form at the sun's poles. At three-fifths of a cycle, the last X-flares occur. At four-fifths, sunspots are typically at a minimum. The current cycle began in December 2021, based on this research the last major flares are predicted to occur in mid-2027.

As of now, a large coronal hole on the Sun's equator is earth-facing, soon driving up the Kp index to 6 as the plasma hits the Earth later today. This will bring some short-lived ionospheric enhancement, followed by a drop of the MUF as the geomagnetic storm progresses. In the absence of Sporadic-E and Tropo there are no favourable conditions predicted for any of the high bands. The recent change in weather brings with it a chance of lightning strikes, unplug and earth the antennas before leaving the shack.

That is the news for this week. Items for inclusion in next week's radio news can be submitted by email to [newsteam@irts.ie](mailto:newsteam@irts.ie) for automatic forwarding to both the radio and printed news services. The deadline is Friday noon.

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